

What is Claimed is:

- [c1] 1. A system for populating management information base tables in a simple network management protocol system, comprising:
a managed device;
a network management system operatively connected to the managed device over a computer network;
a simple network management protocol agent residing on the managed device for collecting and storing device management information and relaying the information to the network management system upon request;
wherein the simple network management protocol agent initially maintains a table including device information to be partially supported in a management information base table, the table including working, default device information values, and
wherein, upon receipt of a get request from the network management system, the simple network management protocol agent populates the management information base table from both information provided by the managed device and the table including device information to be partially supported in a management information base table.
- [c2] 2. The system of claim 1, wherein the simple network management protocol agent includes a back-end management information base compiler.
- [c3] 3. The system of claim 2, wherein the back-end management information base compiler statically allocates the table including device information to be partially supported in the management information base table.
- [c4] 4. The system of claim 1, wherein the managed device provides only partial support for the management information base.
- [c5] 5. The system of claim 1, wherein the network management system and the simple network management protocol agent communicate via user datagram protocol over the computer network.
- [c6] 6. A method for populating management information base tables in a simple network management protocol system, comprising the steps of:

maintaining, at a managed device, a default device information table including device information to be partially supported in a management information base table, the default device information table including working, default device information values for objects that may not be supported by the managed device;

receiving, at a simple network management protocol agent resident on the managed device, a Get request from a network management system operatively connected to the managed device over a computer network;

determining whether all information to be included in the management information base table is available from the managed device;

populating the management information base table from both information provided by the managed device and the default device information table if it is determined that all information to be included in the management information base table is not available from the managed device; and

forwarding the fully populated management information base table to the network management system over the computer network.

- [c7] 7. The method of claim 6, wherein the simple network management protocol agent includes a back-end management information base compiler.
- [c8] 8. The method of claim 7, further comprising the step of statically allocating the default device information table by the back-end management information base compiler.
- [c9] 9. The method of claim 6, wherein the managed device provides only partial support for the management information base.
- [c10] 10. The method of claim 6, wherein the network management system and the simple network management protocol agent communicate via user datagram protocol over the computer network.
- [c11] 11. A computer-readable medium incorporating instructions for populating management information base tables in a simple network management protocol system, comprising:
one or more instructions for maintaining, at a managed device, a default device

information table including device information to be partially supported in a management information base table, the default device information table including working, default device information values for objects that may not be supported by the managed device;

one or more instructions for receiving, at a simple network management protocol agent resident on the managed device, a Get request from a network management system operatively connected to the managed device over a computer network;

one or more instructions for determining whether all information to be included in the management information base table is available from the managed device;

one or more instructions for populating the management information base table from both information provided by the managed device and the default device information table if it is determined that all information to be included in the management information base table is not available from the managed device;

and

one or more instructions for forwarding the fully populated management information base table to the network management system over the computer network.

- [c12] 12. The computer-readable medium of claim 11, wherein the simple network management protocol agent includes a back-end management information base compiler.
- [c13] 13. The computer-readable medium of claim 12, further comprising one or more instructions for statically allocating the default device information table by the back-end management information base compiler.
- [c14] 14. The computer-readable medium of claim 11, wherein the managed device provides only partial support for the management information base.
- [c15] 15. The computer-readable medium of claim 11, wherein the network management system and the simple network management protocol agent communicate via user datagram protocol over the computer network.